<u>Amendments to the Claims:</u>

This listing of claims will replace all prior versions, and listings, of claims in the application:

<u>Listing of Claims:</u>

Claim 1 (original) A method of interpolation for a complementary-color-filtered array image, comprising the steps of:

(a) provide a complementary-color-filtered array of pixel values with yellow pixel values Ye on a first subarray, cyan pixel values Cy on a second subarray, magenta pixel values Mg on a third subarray, and green pixel values G on a fourth subarray;

(b) interpolating the subarray of yellow pixel values to form a yellow array;

(c) interpolating the subarray of cyan pixel values to form a cyan array;

(d) interpolating the subarray of magenta pixel values to form a magenta array;

(e) interpolating the subarray of green pixel values to form a green array;

(f) adjusting the color values for each pixel by

(i) subtracting a quantity $(Ye + Cy - 2^*G - Mg)/4$ from Ye to generate the pixel's adjusted yellow value where Ye is the pixel's yellow value from step (b), Cy is the pixel's cyan value from step (c), Mg is the pixel's magenta value from step (d), and G is the pixel's green value from step (e);

(ii) subtracting the quantity $(Ye + Cy - 2^*G - Mg)/4$ from Cy to generate the pixel's adjusted cyan value;

(iii) adding the quantity $(Ye + Cy - 2^*G - Mg)/4$ to Mg to generate the pixel's adjusted magenta value; and

(iv) adding the quantity $(Ye + Cy - 2^*G - Mg)/8$ to G to generate the pixel's adjusted green value.

Claim 2 (original) A method of interpolated complementary-color-filtered array image processing, comprising the steps of:

(a) provide an interpolated complementary-color-filtered array of pixel values with a pixel's yellow value denoted Ye, cyan value denoted Cy, magenta value denoted Mg, and green value denoted G;

(b) adjusting the color values for each pixel by

(i) subtracting a quantity (Ye + Cy − 2*G − Mg)/4 from Ye to generate the pixel's adjusted yellow value;

(ii) subtracting the quantity (Ye + Cy − 2*G − Mg)/4 from Cy to generate the pixel's adjusted cyan value;

(iii) adding the quantity (Ye + Cy − 2*G − Mg)/4 to Mg to generate the pixel's adjusted magenta value; and

(iv) adding the quantity (Ye + Cy − 2*G − Mg)/8 to G to generate the pixel's adjusted green value.

Claim 3 (currently amended) An interpolator for complementary-color-filtered array image, comprising:

(a) a subarray-to-array interpolator for the color subarrays of a complementary-color-filtered array;

(b) a filter coupled to the output of the interpolator to adjust the interpolated colors at each pixel by adjusting with ~~an~~ a color imbalance factor for the pixel where said color imbalance factor relates to G + Mg − Ye − Cy with G the green value for said pixel, Mg the magenta value, Ye the yellow value, and Cy the cyan value.

Claim 4 (previously presented) The interpolator of claim 3, wherein said subarray-to-array interpolator and said filter are implemented as a program on a programmable processor.